3-month summary

- The chance of a hot period is higher than normal
- This brings an increased likelihood of heatwaves and heat-related impacts
- The chances of a wet or dry period are similar to normal

3-month likelihood of impact

Temperature

5%	45%	50%
chance the season will be COOL	chance the season will be NEAR AVERAGE	chance the season will be HOT
0.3× the normal chance	0.8× the normal chance	2.5× the normal chance

Precipitation

20%	60%	20%
chance the season will be DRY	chance the season will be NEAR AVERAGE	chance the season will be WET
1.0× the normal chance	1.0× the normal chance	1.0× the normal chance

Wind speed

10%	70%	20%
chance the season will be CALM	chance the season will be NEAR AVERAGE	chance the season will be WINDY
0.5× the normal chance	1.2× the normal chance	1.0× the normal chance

1-month summary

- Higher than normal chance of a hot month
- This brings an increased likelihood of heatwaves and heat-related impacts
- The chance of a wet month is similar to normal
- Impacts from thundery downpours remain possible

1-month likelihood of impact

Temperature

10% chance the month will be COOL	40% chance the month will be NEAR AVERAGE	50% chance the month will be HOT
0.5× the normal chance	0.7× the normal chance	2.5× the normal chance

Precipitation

15% chance the month will be DRY	65% chance the month will be NEAR AVERAGE	20% chance the month will be WET
0.8× the normal chance	1.1× the normal chance	1.0× the normal chance

Wind speed

20% chance the month will be CALM	55% chance the month will be NEAR AVERAGE	25% chance the month will be WINDY
1.0× the normal chance	0.9× the normal chance	1.3× the normal chance

Understanding the Outlook

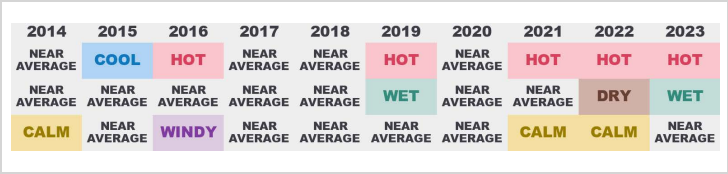
The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and HOT for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

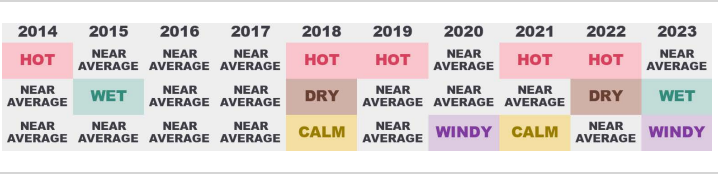
These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years


2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
NEAR AVERAGE COOL HOT NEAR AVERAGE NEAR AVERAGE HOT NEAR AVERAGE HOT HOT HOT
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE DRY WET
CALM NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE CALM CALM NEAR AVERAGE

Same 1-month period over the last 10 years


2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
HOT NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE HOT HOT NEAR AVERAGE HOT HOT NEAR AVERAGE
NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE DRY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE DRY WET
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE CALM NEAR AVERAGE WINDY CALM NEAR AVERAGE WINDY

Outlook in context

Drivers of UK weather for July to September
Global weather patterns can affect UK weather during the coming season and their influence acts to shift the chances of the categories in the Outlook. However, the influence of many of these drivers on the UK climate tends to be small at this time of year.

Drivers relevant to the current Outlook include:
• The warming of UK climate consistent with wider global warming trends.
• Stratospheric winds – the normal spring transition from westerly to easterly in direction was later than usual this year, slightly favouring settled conditions early in this period.
• Widely above average sea surface temperatures across the North Atlantic.
• ENSO is now neutral with a transition to La Niña possible during late summer or into autumn.

Long-range weather predictions
The Met Office and other prediction centres around the world routinely produce long-range forecasts of conditions in the months ahead. As is typical for forecasts made at this time of year, signals for prevailing weather patterns over the UK over the next three months are small. There is a slight signal favouring high pressure near the UK but this results in very limited shifts in probabilities for rainfall. The increased likelihood of a hot period is likely being largely driven mostly by the background warming of the UK climate.

Impacts
Consistent with our warming climate, there is an increase in the likelihood of hotter than normal conditions. This doesn't necessarily mean that the UK will see heatwaves and heat-related impacts but the likelihood of these is higher than normal. Whilst rainfall signals are limited, some spells of unsettled weather can be expected. As is typical for the time of year, these spells are likely to see heavy downpours and thunderstorms for some regions.

Outlook compared to normal likelihood

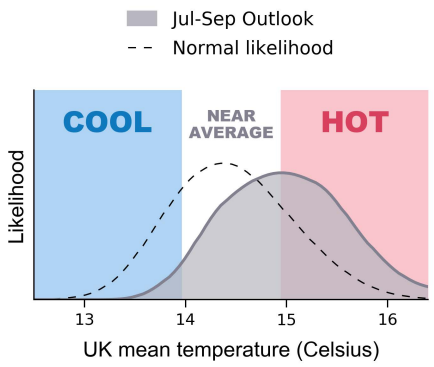
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

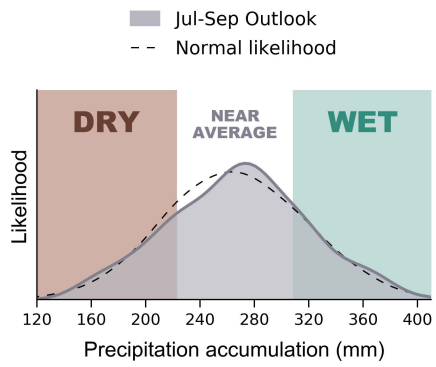
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



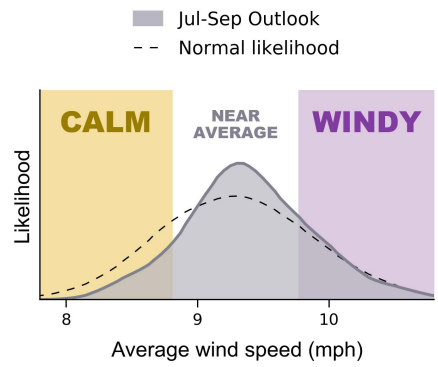
Likelihood leans towards hot

3-month precipitation Outlook compared to normal



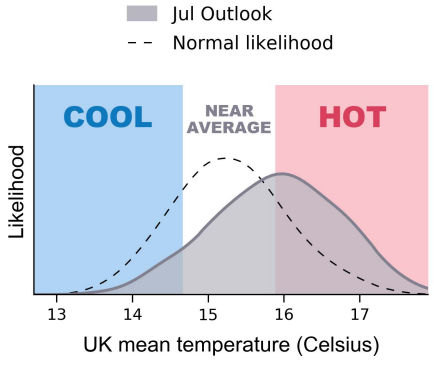
Likelihoods of dry and wet similar

3-month wind speed Outlook compared to normal



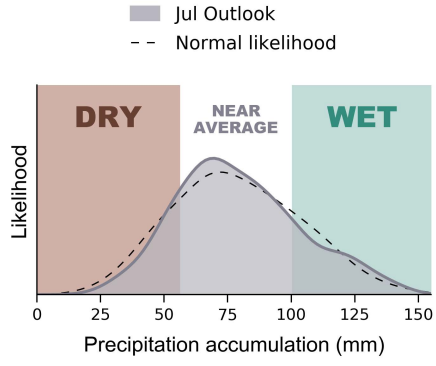
Likelihood leans slightly away from calm

1-month temperature Outlook compared to normal



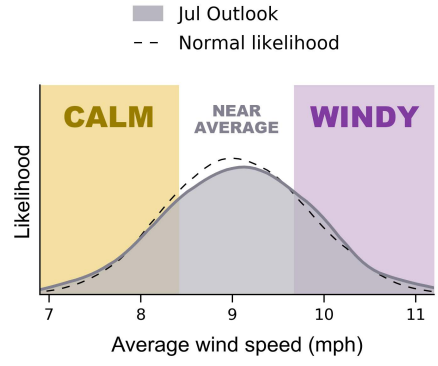
Likelihood leans towards hot

1-month precipitation Outlook compared to normal



Likelihood leans slightly away from dry

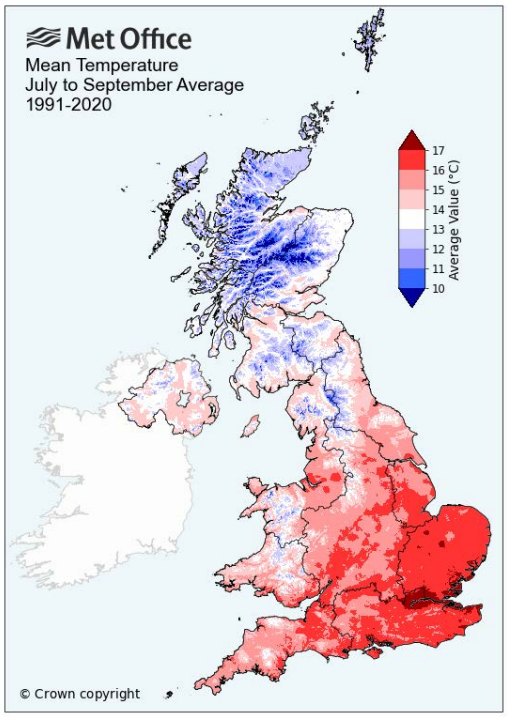
1-month wind speed Outlook compared to normal



Likelihood leans slightly towards windy

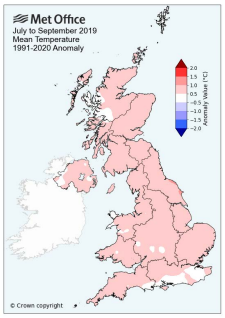
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

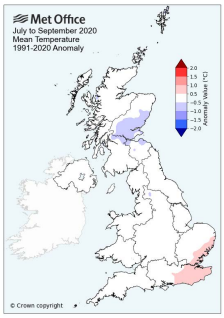


Average temperatures for July - September based on observations of past years.

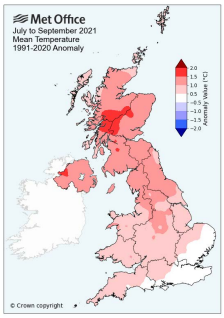
Last 5 years temperatures, difference from average (3-month)



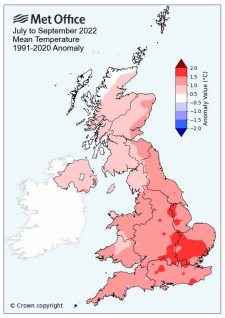
Jul - Sep 2019



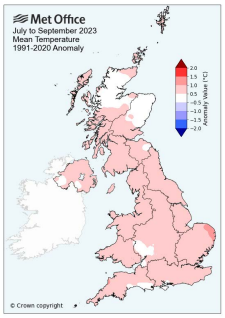
Jul - Sep 2020



Jul - Sep 2021



Jul - Sep 2022



Jul - Sep 2023

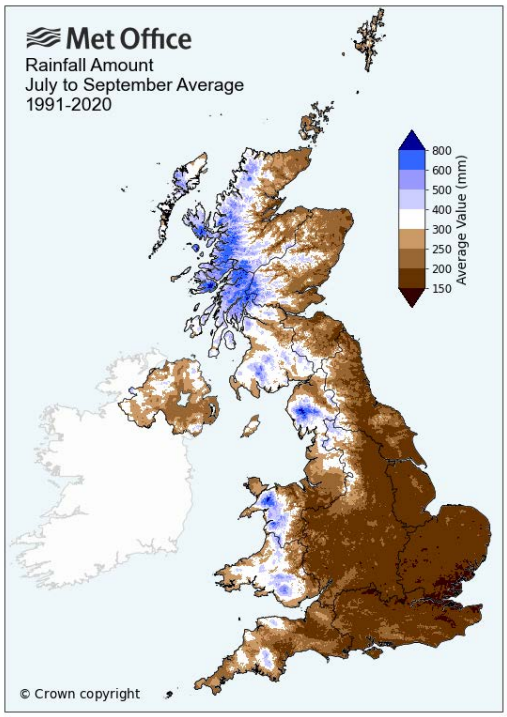
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how July - September temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

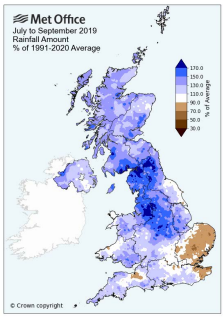
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

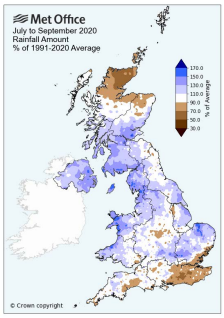


Average precipitation for July - September based on observations of past years.

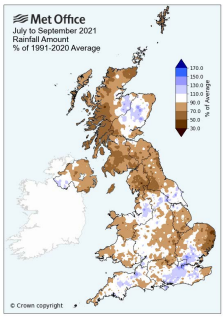
Last 5 years precipitation, difference from average (3-month)



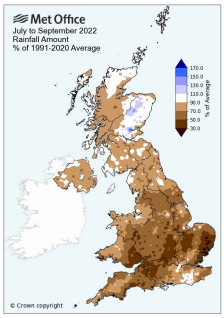
Jul - Sep 2019



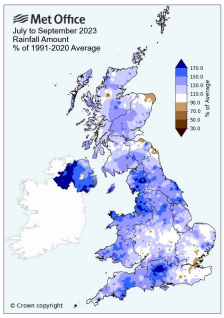
Jul - Sep 2020



Jul - Sep 2021



Jul - Sep 2022



Jul - Sep 2023

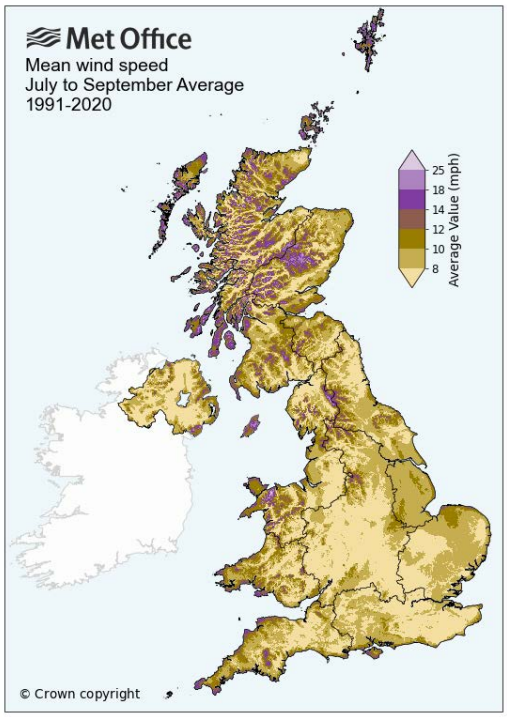
% of average

< 30	30 to 50	50 to 70	70 to 90	90 to 110	110 to 130	130 to 150	150 to 170	> 170

These maps show how November - January precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

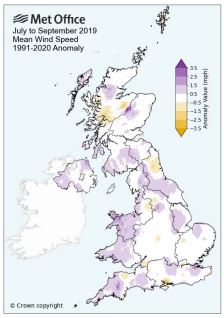
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

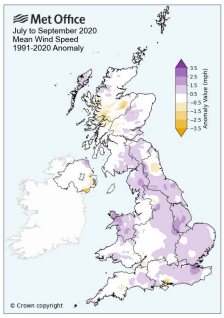


Average wind speed for July - September based on observations of past years.

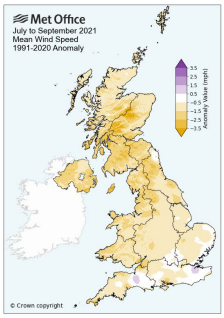
Last 5 years wind speed, difference from average (3-month)



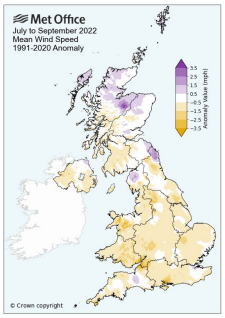
Jul - Sep 2019



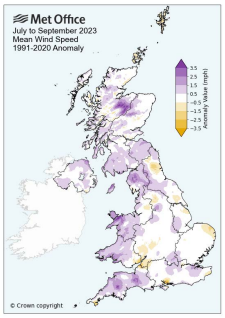
Jul - Sep 2020



Jul - Sep 2021



Jul - Sep 2022



Jul - Sep 2023

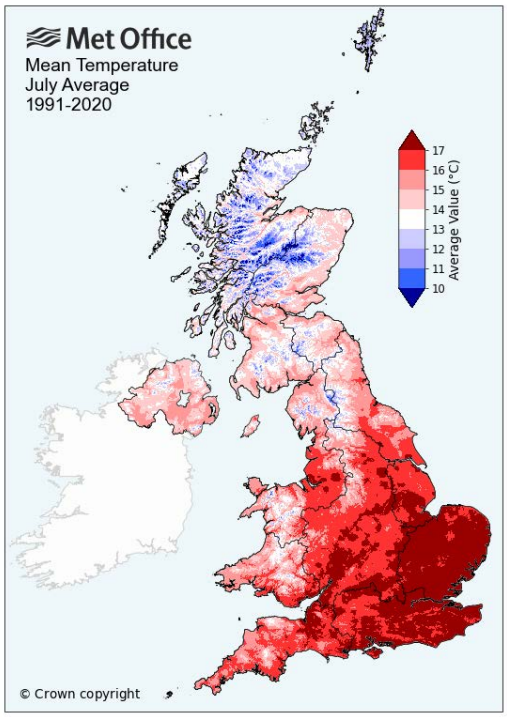
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how July - September wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

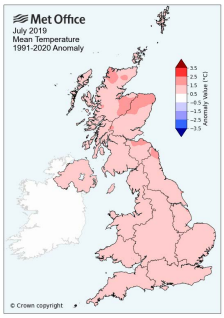
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

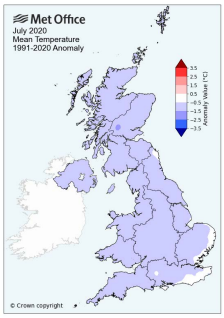


Average temperatures for July based on observations of past years.

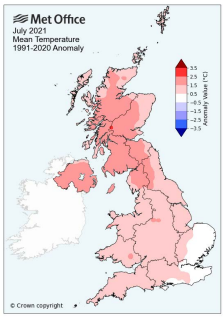
Last 5 years temperatures, difference from average (1-month)



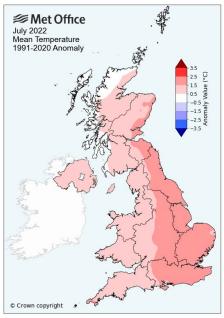
Jul 2019



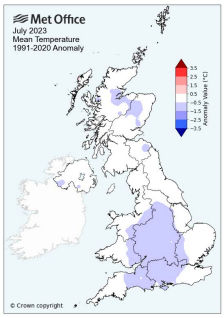
Jul 2020



Jul 2021



Jul 2022



Jul 2023

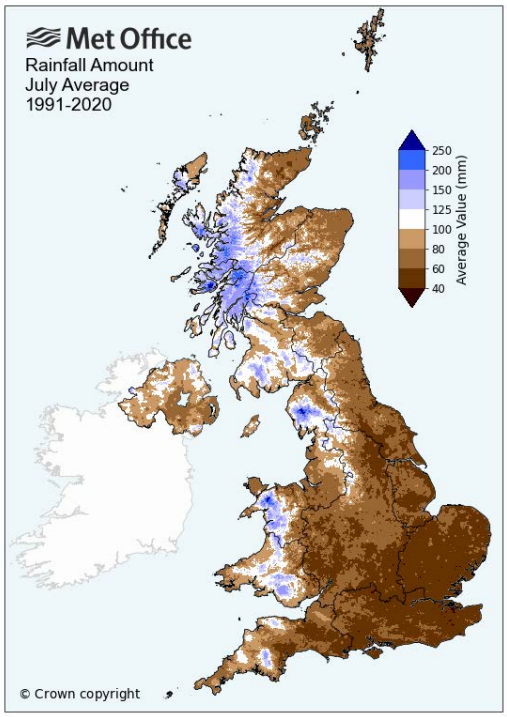
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how July temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

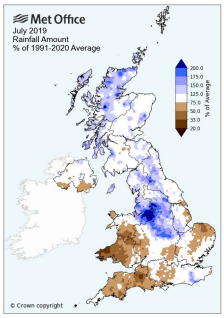
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

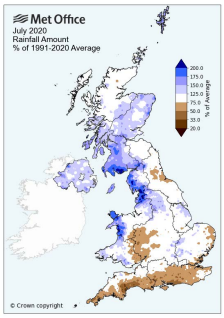


Average precipitation for July based on observations of past years.

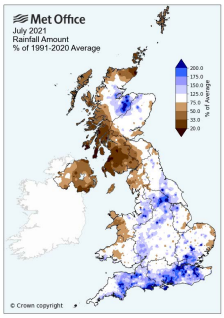
Last 5 years precipitation, difference from average (1-month)



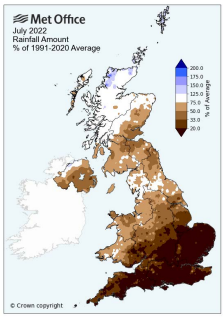
Jul 2019



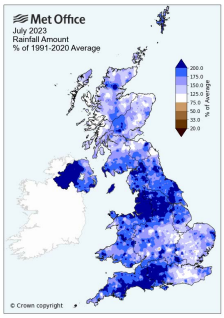
Jul 2020



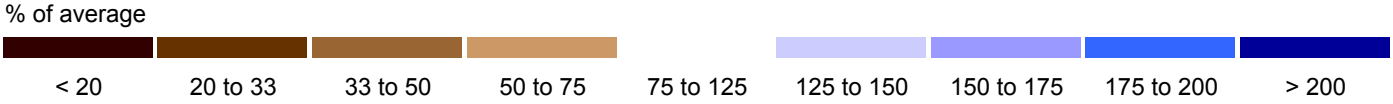
Jul 2021



Jul 2022



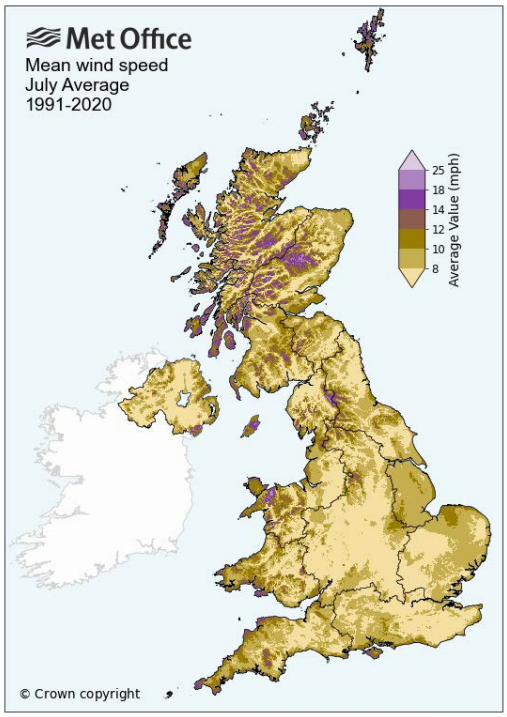
Jul 2023



These maps show how July precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

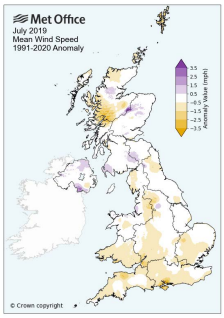
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.

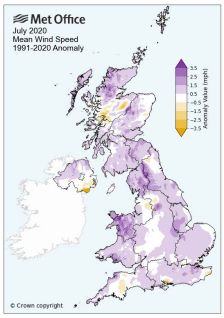


Average wind speed for July based on observations of past years.

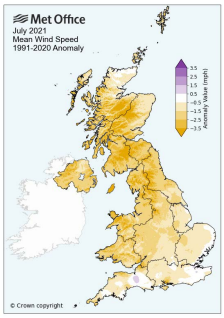
Last 5 years wind speed, difference from average (1-month)



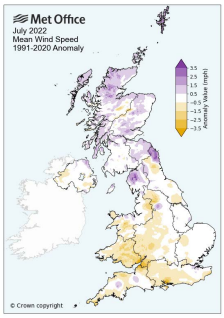
Jul 2019



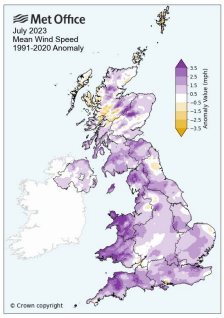
Jul 2020



Jul 2021



Jul 2022



Jul 2023

Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how July wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Can we expect the summer weather to improve and will we see any further hot weather or heatwaves?
A. An increase in the likelihood of warmer than normal conditions is consistent with our warming climate and while this Outlook suggests the chances of heatwaves are higher than normal a range of conditions much less extreme than heatwaves are possible. An increased chance of hot conditions could just as easily reflect fairly typical summer conditions with a mix of hot and cool days, warm nights, or less extreme levels of warmth rather than continual heatwave conditions specifically.The Outlook does not guarantee prolonged hot weather and does not imply continuous heatwave conditions.

Q. Does the risk of thundery downpours increase the risk of flooding?
A. The chance of a wet or dry 3-month period are fairly balanced with the most likely scenario being rainfall amounts being close to average. However, some spells of unsettled weather are to be expected with heavy downpours and thunderstorms for some regions, as is typical for the time of year. This could increase the risk of localised impacts and higher than average rainfall totals in areas affected, with other areas remaining dry. Rainfall totals are likely to vary considerably in these situations. Questions about potential impacts from heavy rainfall such as flooding in your area should be referred to the Environment Agency, SEPA, Natural Resources Wales or NI Direct websites.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

Website:
www.metoffice.gov.uk

Email:
enquiries@metoffice.gov.uk

Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.